



EXECUTIVE SUMMARY

01

Introduction

Project Title

Proposed Construction Of Module 2 (25,000 PE) Sewage Treatment Plant At Batu Kawan Industrial Park, Mukim 13, Seberang Perai Selatan, Pulau Pinang

Project Proponent

Penang Development Corporation
 Persiaran Mahsuri, Bandar Bayan Baru,
 11909 Bayan Lepas, Pulau Pinang
 Telephone No.: 04-6340111
 Email: enquiry@pdc.gov.my
 Contact Person: Pn. Norhartini Binti Mohd Noor

Qualified Person

- Ir. Dr. Lee Aik Heng (ID No. CEP-C0388)
- Raja Rokiah R. Saigon (ID No. CEP-C0381)
- Linda Geh Guat Yeow (ID No. CEP-CS0382)
- Lim Sze Fook (ID No. CEP-CS0126)

Legislative Requirement

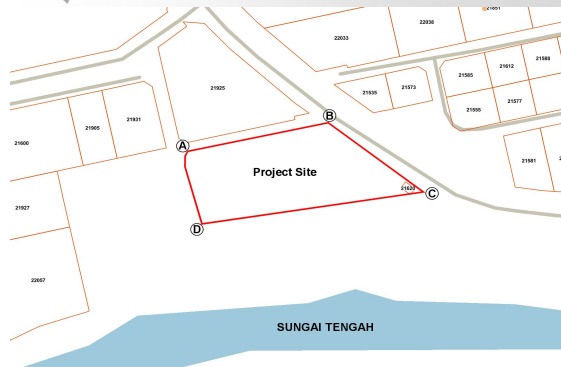
- Prescribed activity under the First Schedule, Activity 14(c)(i), EIA Order (Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015) as the Proposed Project involves construction of Module 2 for the existing sewage treatment plant with more than 20,000 PE
- EIA study required and its report to be approved by the DOE under Section 34A, Environmental Quality Act 1974 prior to the implementation of the Proposed Project

Statement Of Need

- The Proposed Project aims to construct Module 2 of the existing sewage treatment plant operated by IWK (Asset No. SPI 616)
- The needs of the Proposed Project is justified as it is in line with the need to provide the related infrastructure to cater for the expanding population in Batu Kawan.

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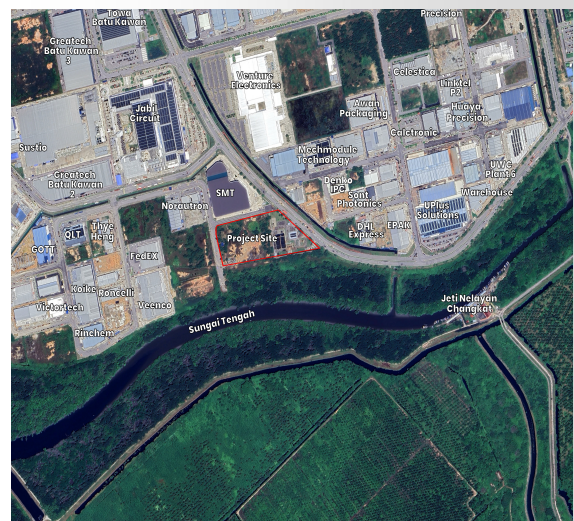
Location



Point	Georeferences	
	Latitude	Longitude
A	N 5° 12' 51.06"	E 100° 26' 13.84"
B	N 5° 12' 52.42"	E 100° 26' 20.57"
C	N 5° 12' 49.10"	E 100° 26' 24.88"
D	N 5° 12' 47.55"	E 100° 26' 14.73"

03

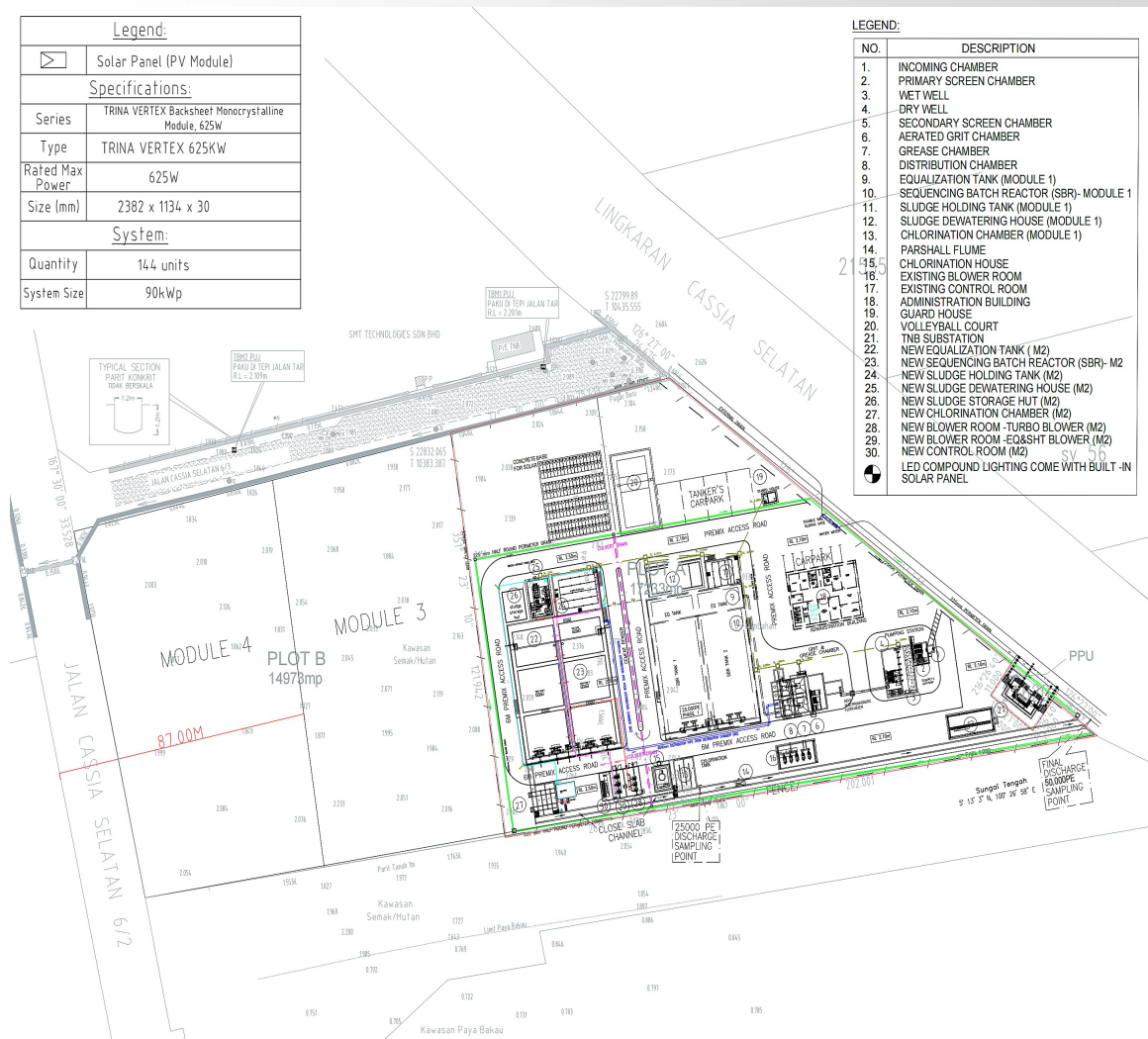
Sensitive Receptors





Proposed Project involves the construction of Modul 2 of 25,000 PE for the existing sewage treatment plant in Batu Kawan (SPI 616).

Legend:	
	Solar Panel (PV Module)
Specifications:	
Series	TRINA VERTEX Backsheet Monocrystalline Module, 625W
Type	TRINA VERTEX 625KW
Rated Max Power	625W
Size (mm)	2382 x 1134 x 30
System:	
Quantity	144 units
System Size	90kWp



NO.	DESCRIPTION
1.	INCOMING CHAMBER
2.	PRIMARY SCREEN CHAMBER
3.	WET WELL
4.	DRY WELL
5.	SECONDARY SCREEN CHAMBER
6.	AERATED GRIT CHAMBER
7.	GREASE CHAMBER
8.	DISTRIBUTION CHAMBER
9.	EQUALIZATION TANK (MODULE 1)
10.	SEQUENCING BATCH REACTOR (SBR)- MODULE 1
11.	SLUDGE HOLDING TANK (MODULE 1)
12.	SLUDGE DEWATERING HOUSE (MODULE 1)
13.	CHLORINATION CHAMBER (MODULE 1)
14.	PARSHALL FLUME
15.	CHLORINATION HOUSE
16.	EXISTING BLOWER ROOM
17.	EXISTING CONTROL ROOM
18.	ADMINISTRATION BUILDING
19.	GUARD HOUSE
20.	VOLLEYBALL COURT
21.	TNB SUBSTATION
22.	NEW EQUALIZATION TANK (M2)
23.	NEW SEQUENCING BATCH REACTOR (SBR)- M2
24.	NEW SLUDGE HOLDING TANK (M2)
25.	NEW SLUDGE DEWATERING HOUSE (M2)
26.	NEW SLUDGE STORAGE HUT (M2)
27.	NEW CHLORINATION CHAMBER (M2)
28.	NEW BLOWER ROOM -TURBO BLOWER (M2)
29.	NEW BLOWER ROOM -EQ&SHT BLOWER (M2)
30.	NEW CONTROL ROOM (M2)
	LED COMPOUND LIGHTING COME WITH BUILT-IN SOLAR PANEL



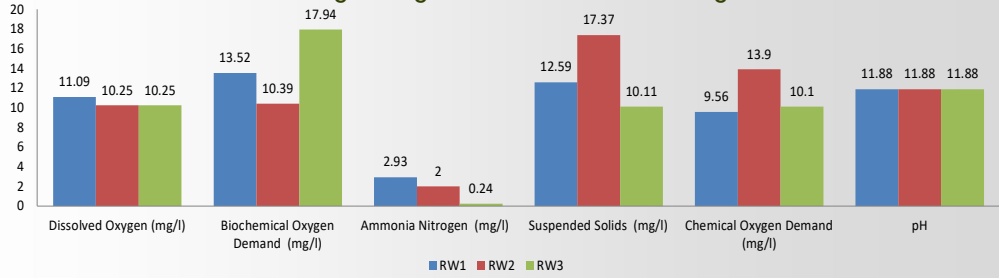


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Existing Environment

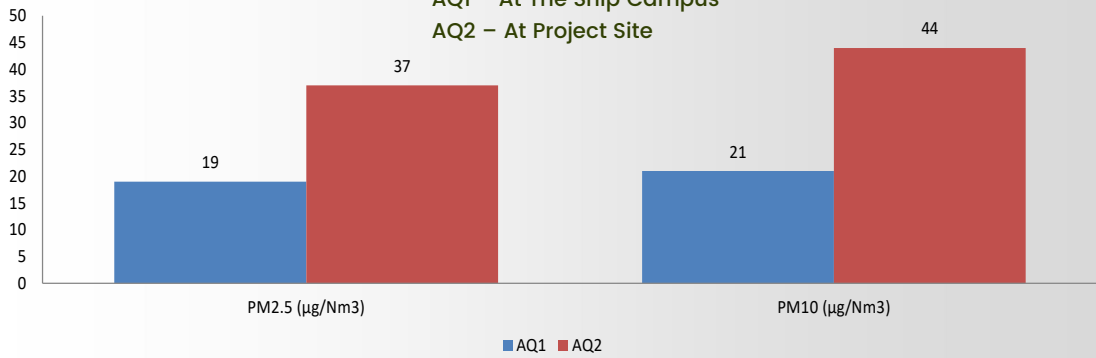
Sub Index For Sungai Tengah

RW1 – At Sungai Tengah upstream of discharge from STP
 RW2 – At At Sungai Tengah downstream of discharge from STP
 RW3 – At 1 Km Sungai Tengah downstream of discharge from STP



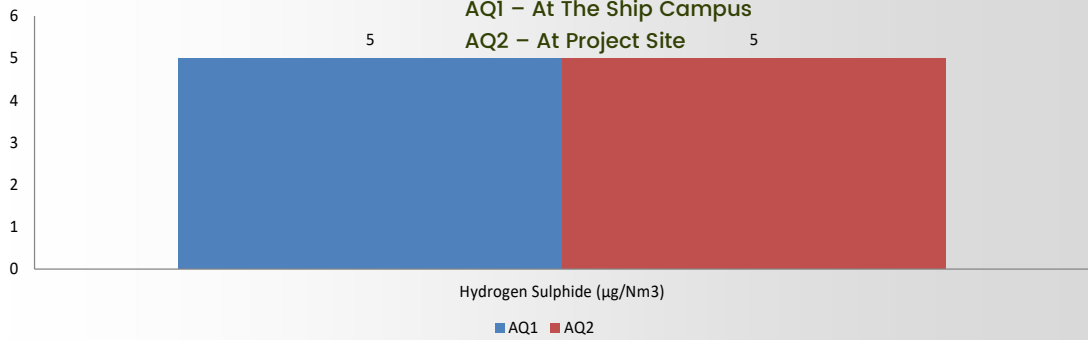
Air Quality

AQ1 – At The Ship Campus
 AQ2 – At Project Site



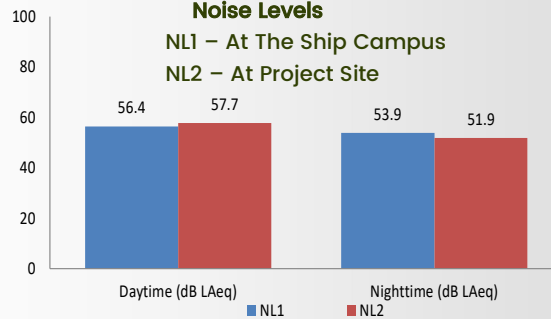
Odor Quality

AQ1 – At The Ship Campus
 AQ2 – At Project Site



Noise Levels

NL1 – At The Ship Campus
 NL2 – At Project Site





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Impact And Mitigation Measures

During Upgrading and Construction

Impacts

- Sediment issues may deteriorate water quality;
- Fugitive emissions from vehicle movement;
- Odor may be released during desilting works;
- Noise from earthwork and construction works; and
- Safety issues.

Mitigation Measures

- Site clearing and earthworks shall commence with the installation of the LD-P2M2;
- Experienced engineering consultants shall be appointed to monitor and closely supervise work at site;
- Waste management plan to be in place;
- Recommendations outlined during upgrading and construction works shall be followed accordingly;
- Adequate safety signages to be in place; and
- Strict monitoring and control throughout implementation of Proposed Project.

During Operation

Impacts

- Impact from the discharge of treated sewage;
- Impact from residual waste generation; and
- Operational hazards.

Mitigation Measures

- Convey sewage to the upgraded sewage treatment plant for treatment;
- Residual waste to be regularly collected and dispose accordingly;
- Routine maintenance to be conducted for STP;
- Monitoring the discharges from STP; and
- Hazop study and recommendations to be followed closely.

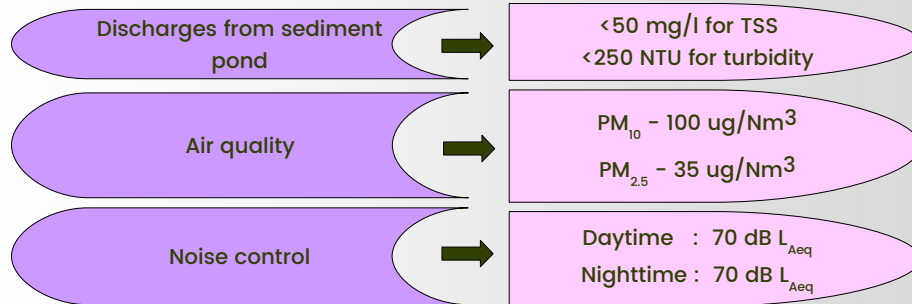




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Environmental Monitoring

Proposed Compliance Monitoring At Construction Stage



Proposed Impact Monitoring Program During Upgrading Stage

